

Apparatus and Method for Bonding a Transmission Line to a Downhole Tool

Abstract

An apparatus for bonding a transmission line to the central bore of a downhole tool includes a pre-formed interface for bonding a transmission line to the inside diameter of a downhole tool. The pre-formed interface includes a first surface that substantially conforms to the outside contour of a transmission line and a second surface that substantially conforms to the inside diameter of a downhole tool. In another aspect of the invention, a method for bonding a transmission line to the inside diameter of a downhole tool includes positioning a transmission line near the inside wall of a downhole tool and placing a mold near the transmission line and the inside wall. The method further includes injecting a bonding material into the mold and curing the bonding material such that the bonding material bonds the transmission line to the inside wall.